ABSTRACT OF THE INVENTION

A method and system are provided for transmitting information in a Mobile Internet Protocol (IP) environment, which includes a home network, a home agent (HA) provided at the home network, a base station (BS) broadcasting a pilot signal, a foreign agent (FA) provided at or associated with the BS, a mobile node (MN) providing the ability to detect and identify itself to a BS, a proxy mobile node (PMN) identifying the MN wherein the PMN is provided at the BS. If the PMN identifies the MN, the PMN retrieves an IP address for each of the MN, FA and HA and sends a registration request to the FA. The FA relays the registration request to the HA, and the proxy MN is registered with the HA. The MN functionality is provided transparently to the MN by the PMN. The network may further include a further base station (BS) with a further foreign agent (FA) provided at or associated with the new BS. Another PMN is provided at the further BS. If the MN detects the other BS, the further PMN identifies the MN using normal link layer messages, retrieves an IP address for each of the MN, other FA, and HA, and sends a registration request to the further FA. The further FA relays the re-registration request to the HA, and the other PMN is registered with the HA. The initial and all subsequent registrations with the HA associated with the home network are transparent to the MN, i.e., so that the MN itself is not required to implement the registration with the home agent since it may be mobile, moving from one base station to the next. This significantly simplifies the configuration of the MN and the Mobile IP network.